

ORIGINAL

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

In the Matter of)
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Amendment of the Commission's Rules with)
Regard to the 3650-3700 MHz Government)
)

ET Docket No. 98-237

COMMENTS OF TRANSCOMM, INC.

TRANSCOMM, Inc. ("TRANSCOMM") hereby responds to issues raised in the Federal Communications Commission ("Commission") Notice of Proposed Rulemaking and Order ("NPRM") addressing the allocation of the 3650-3700 MHz frequencies to non-Government fixed services on a primary basis.

INTRODUCTION

TRANSCOMM is an economic and engineering consulting firm established in 1969. Since its inception, it has specialized in providing solutions to the economic and financial problems of high technology industries such as telecom services. It has worked with telecom investors, operators, customers, regulators, and policymakers in the United States and in numerous other countries, assisting in the planning, analysis and implementation of successful telecom programs. As a result of TRANSCOMM's activities in Eastern Europe, Russia, China, Africa, and Latin America, it has been extensively involved in efforts to develop and implement telecom infrastructure projects.

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Many of these efforts have focused on bringing reasonably priced telecom services to rural areas previously without access. Accordingly, TRANSCOMM has keenly watched the improvements in wireless telecom technology and their potential for infrastructure development.

Most recently, as a result of its interest in the potential for fixed wireless access technology, TRANSCOMM assisted Mountain Telecommunications, Inc. ("MTI") and Saddleback Communications Company ("Saddleback") in developing their Petition for Rulemaking in the Matter of Fixed Wireless Access, filed at the Commission on September 30, 1998 ("MTI Petition"). The MTI Petition clearly describes the telecom needs of the petitioners and other parties similarly situated, explains why those needs can best be served by Fixed Wireless Access ("FWA") technology, identifies a reasonable mechanism to share those frequencies with the U.S. Government operations also using them, and requests the Commission to allocate spectrum in the 3400-3700 MHz band on a shared basis for FWA applications in the United States.

OVERVIEW

TRANSCOMM supports the Commission's proposal to allocate the 3650-3700 MHz band to non-government fixed service on a primary basis. It also agrees with the Commission's vision of the usefulness of these frequencies. However, TRANSCOMM offers two inter-related general comments.

First, TRANSCOMM urges the Commission to develop rules that recognize that the 3650-3700 MHz frequencies are actually part of the larger 3400-3700 MHz band for which a number of important public interest issues require urgent attention. The MTI

Petition clearly explains the immediate public need for those frequencies in this country:

MTI has been investigating the various alternatives to economically extend its full quality wireline services to unserved and underserved residential and small business customers within its target communities, despite the relatively low density of the population and the rugged terrain in the region. After a thorough analysis of the potential solutions, MTI has determined that the desired services can only be achieved in a cost effective manner by the use of the latest type of Fixed Wireless Access ("FWA") systems now being deployed in global markets outside the United States.¹

The MTI Petition also explains that preliminary results from potential interference studies currently being conducted by Northern Telecom Inc. and the U.S. Department of Defense/Joint Spectrum Center (DoD/JSC) indicate that it should be possible to develop reasonable licensing and technical coordination rules to enable FWA systems to operate in a manner that will not interfere with DoD operations using some of the frequencies in the 3400-3700 MHz band. Further, implementation of such rules would finally permit the United States to bring its Table of Frequency Allocations into alignment with the ITU allocations for this band. The rest of the world, including our neighbors to the north and south, is using the 3400-3700 MHz band for non-government fixed service applications such as FWA. The United States, as a world leader, should use this band in the same way.

Second, when designing the rules for the 3650-3700 MHz frequencies, TRANSCOMM urges the Commission to consider their position within the broader 3400-3700 MHz band. For that broader band, the Commission should consider more than just the competitive and financial/budgetary policies it has identified in its NPRM for the 3650-3700 MHz. The Commission should also consider its policies of providing universal service to all citizens of the United States and widespread access to reasonably priced

¹ MTI Petition at i.

advanced services needed for social and economic improvement. For areas of the country which lack reasonably priced basic and advanced telecom services and the social and economic benefits such services would provide, the frequencies in the 3400-3700 MHz band should be made available for deployment as soon as possible. As the MTI Petition states:

This petition details the urgency of these matters from the perspective of the Petitioners and the communities that they serve. This petition also demonstrates the wider public interest benefits of FWA, including achieving more affordable Universal Service and providing access to the National Information Infrastructure – policies explicitly advanced by the Telecommunications Act of 1996.²

SPECIFIC COMMENTS

TRANSCOMM offers the following specific comments on the NPRM.

Paragraph 7: Use of 3400-3700 MHz for FWA

In paragraph 7 of its NPRM, the Commission notes that there is strong interest in providing FWA in the 3400-3700 MHz frequency range but states that the 3400-3600 MHz band is not available because it is used by the military. This does not adequately describe the situation. There appears to be sufficient spectrum within the 3400-3700 MHz range to permit carefully coordinated commercial operations to coexist with military operations, without interference. The MTI Petition describes the petitioners' successful demonstration of an FWA operation at 3425-3442 MHz and 3475-3492 MHz which does not appear to interfere with any DoD operations. The MTI Petition states:

The Petitioners acknowledge that presently the United States, unlike other countries, has allocated this band for exclusive Government use (for radiolocation) on a PRIMARY basis. Nonetheless, based on the

² *Id.* at ii.

preliminary results from potential interference studies currently being conducted by Northern Telecom Inc. (“Nortel”) and the Department of Defense/Joint Spectrum Center (“JSC”), and assuming confirmation of these tests via successful field operation under our experimental license, we believe that it will be feasible to define some reasonable technical coordination rules that will enable operators like MTI to deploy FWA systems in such a manner so as not to impact adversely the operations of the U.S. Government in this band.³

Further, the MTI Petition proposes licensing rules for FWA and DoD sharing of this spectrum under Part 101 of the Commission’s rules. These proposed rules provide for full and careful coordination with DoD and NTIA.⁴ TRANSCOMM supports the MTI Petition and its proposed rules for the 3400-3700 MHz band. The proposed rules would permit use of the 3400-3700 MHz band through selective sharing of frequencies that are not fully utilized by the U.S. government but which cannot readily be released to the non-government sector because of the critical services provided by the government. As MTI states in its Petition:

Allocation of this spectrum as proposed represents a “win-win” situation for the U.S. Government, telecommunications regulators, MTI, Saddleback (and similar operators) – and, most importantly, for the long suffering unserved and underserved customers who make up a significant part of our communities.⁵

Accordingly, TRANSCOMM recommends that the Commission seriously consider the licensing proposal for the 3400-3700 MHz band made by the MTI Petition when developing rules for the 3650-3700 MHz portion of that band.

Paragraph 10: Licensing and Service Rules for 3650-3700 MHz

In paragraph 10 of its NPRM, the Commission requests comments on licensing

³ *Id.* (emphasis in original).

⁴ *See id.* at 22-25 and Appendix A.

⁵ *Id.* at 22.

rules for the 3650-3700 MHz frequencies. As noted above, TRANSCOMM supports the position that licensing rules for the 3650-3700 MHz frequencies should be designed with the expectation that the full 3400-3700 MHz band will be used on a shared basis for both DoD and FWA applications. As the Commission recognizes,⁶ commercial use of the 3650-3700 MHz frequencies will require the same careful coordination with DoD operations as for the rest of the 3400-3700 MHz band.

The MTI Petition proposes licensing rules which both (1) address the careful, coordinated sharing of this 3400-3700 MHz band between FWA and DoD operations and (2) permit multiple FWA licensees in most locations. MTI's proposal integrates the rules for licensing and regulation of FWA into the current structure for licensing fixed services to common carriers now specified in Part 101 of the Commission's Rules.⁷ This proposal is based on the fact that the characteristics of FWA applications are comparable to those of other Fixed Service applications regulated under Part 101. Both applications are generally used to provide cost-effective supplements and/or replacements for wireline telecom facilities covering specific, relatively limited, geographic areas. Moreover, as will be required for FWA license applicants, current Part 101 license applicants are now required to coordinate frequency usage to efficiently utilize and share the available spectrum. As a result, there is sufficient spectrum to avoid contention for specific frequencies by multiple eligible Part 101 license applicants in a location. The same is expected for FWA. For both types of applications, mutually exclusive applications for the same location will be unlikely. In the unlikely case that mutually exclusive FWA

⁶ See NPRM at para. 4.

⁷ See MTI Petition at 22-25 and Appendix A.

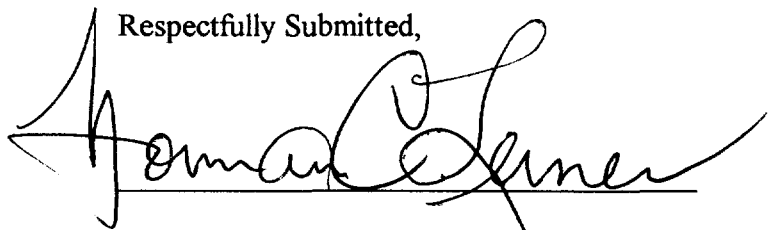
applications cannot be resolved by coordination and negotiation, an auction process can be used to award the license. Further, under the MTI Petition's proposal, frequencies would be licensed in 25 MHz (paired) blocks (consistent with international practices), the Section 101.103 technical coordination requirements would be required, the standard public notice and comment process would be followed, and each FWA nodal station would require a license but separate individual licenses for associated subscriber stations would not be required.

TRANSCOMM recommends the Commission consider these proposals and the appropriate disposition of the entire 3400-3700 MHz band when it designs the licensing rules for the 3650-3700 MHz frequencies.

CONCLUSION

TRANSCOMM appreciates this opportunity to provide comments on an extremely important subject. At the dawn of a new millennium, the coordinated availability of the 3400-3700 MHz spectrum is an opportunity to help ensure that all people of the United States have reasonably priced access to basic and advanced telecommunications services. TRANSCOMM urges the Commission to make the most of that opportunity.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "Norman C. Lerner", is written over a horizontal line.

Norman C. Lerner, Ph.D., P.E.
President,
TRANSCOMM, Inc.

Dated: February 16, 1999